

antinomycosis, or actinobacillosis to such an extent that the lesions would be readily detected on post-mortem inspection, need not be individually tagged on ante-mortem inspection with the U.S. Suspect tag, provided that such cattle are segregated and otherwise handled as U.S. Suspects.

(b) In addition, identification of U.S. Suspect swine must include the use of tattoos specified by the inspector to maintain the identity of the animals through the dehairing equipment when such equipment is used.

(c) All livestock required by this part to be identified as U.S. Condemned shall be tagged with a serially numbered metal ear tag bearing the term “U.S. Condemned.”

(d) The devices described in paragraphs (a), (b), and (c) of this section shall be the official devices for identification of livestock required to be identified as U.S. Suspect or U.S. Condemned as provided in this part.

PART 310—POST-MORTEM INSPECTION

Sec.

- 310.1 Extent and time of post-mortem inspection; post-mortem inspection staffing standards.
- 310.2 Identification of carcass with certain severed parts thereof and with animal from which derived.
- 310.3 Carcasses and parts in certain instances to be retained.
- 310.4 Identification of carcasses and parts; tagging.
- 310.5 Condemned carcasses and parts to be so marked; tanking; separation.
- 310.6 Carcasses and parts passed for cooking; marking.
- 310.7 Removal of spermatic cords, pizzles and preputial diverticuli.
- 310.8 Passing and marking of carcasses and parts.
- 310.9 Anthrax; carcasses not to be eviscerated; disposition of affected carcasses; hides, hoofs, horns, hair, viscera and contents, and fat; handling of blood and scalding vat water; general cleanup and disinfection.
- 310.10 Carcasses with skin or hide on; cleaning before evisceration; removal of larvae of Hypodermæ, external parasites and other pathological skin conditions.
- 310.11 Cleaning of hog carcasses before incising.
- 310.12 Sternum to be split; abdominal and thoracic viscera to be removed.

- 310.13 Inflating carcasses or parts thereof; transferring caul or other fat.
- 310.14 Handling of bruised parts.
- 310.15 Disposition of thyroid glands and laryngeal muscle tissue.
- 310.16 Disposition of lungs.
- 310.17 Inspection of mammary glands.
- 310.18 Contamination of carcasses, organs, or other parts.
- 310.19 Inspection of kidneys.
- 310.20 Saving of blood from livestock as an edible product.
- 310.21 Carcasses suspected of containing sulfa and antibiotic residues; sampling frequency; disposition of affected carcasses and parts.
- 310.22 Specified risk materials from cattle and their handling and disposition.
- 310.23 Identification of carcasses and parts of swine.
- 310.24 [Reserved]
- 310.25 Contamination with microorganisms; process control verification criteria and testing; pathogen reduction standards.

AUTHORITY: 21 U.S.C. 601–695; 7 CFR 2.18, 2.53.

SOURCE: 35 FR 15567, Oct. 3, 1970, unless otherwise noted.

§ 310.1 Extent and time of post-mortem inspection; post-mortem inspection staffing standards.

(a) A careful post-mortem examination and inspection shall be made of the carcasses and parts thereof of all livestock slaughtered at official establishments. Such inspection and examination shall be made at the time of slaughter unless, because of unusual circumstances, prior arrangements acceptable to the Administrator have been made in specific cases by the circuit supervisor for making such inspection and examination at a later time.

(b)(1) The staffing standards on the basis of the number of carcasses to be inspected per hour are outlined in the following tables. Standards for multiple inspector lines are based on inspectors rotating through the different types of inspection stations during each shift to equalize the workload. The inspector in charge shall have the authority to require the establishment to reduce slaughter line speeds where, in his judgment, the inspection procedure cannot be adequately performed at the current line speed because of particular deficiencies in carcass preparation and presentation by the plant at the higher speed, or because the

health condition of the particular animals indicates a need for more extensive inspection.

(2) *Cattle inspection.* For all cattle staffing standards, an “a” in the “Number of Inspectors by Stations” column means that one inspector performs the entire inspection procedure and a “b” means that one inspector performs the head and lower carcass inspection and a second inspector performs the viscera and upper carcass inspection.¹

(i) Inspection Using the Viscera Truck.

STEERS AND HEIFERS

Maximum slaughter rates (head per hour)	Number of inspectors by stations		
	Head	Viscera	Car-cass
1 to 27	a	a	a
28 to 56	b	b	b
57 to 84	1	1	1
85 to 86	1	2	1
87 to 143	2	2	1

¹The “Maximum Slaughter Rates” figures listed in paragraph (b)(2)(i) of this section for one (a) and two (b) inspector kills are overstated because the time required to walk from one inspection station to another is not included. To determine the proper adjusted maximum slaughter line speed, paragraph (b)(2)(i)(A) of this section for one inspector kills or paragraph (b)(2)(i)(B) of this section for two inspector kills must be used along with their accompanying rules.

COWS AND BULLS

Maximum slaughter rates (head per hour)	Number of inspectors by stations		
	Head	Viscera	Car-cass
1 to 27	a	a	a
28 to 55	b	b	b
56 to 77	1	1	1
78 to 81	1	2	1
82 to 134	2	2	1

(A) Rules for determining adjusted maximum slaughter rates for single-inspector kills considering walking distance according to the table in this subdivision: Determine the distances the inspector actually walks between the points shown in columns 2 through 14 of the following table. For each column, determine the deduction figure opposite the appropriate number of feet in column 1. Compute the total of the deduction figures for columns 2 through 14. The adjusted maximum rate is the maximum rate in paragraph (b)(2)(i) of this section minus total of the deduction figures. If the resultant number is not a whole number, it must be rounded off to the next *lowest* whole number.

ONE-INSPECTOR CATTLE KILL—VISCERA TRUCK

[Table of deductions from maximum slaughter rates for each 2 feet between points (in tenths of cattle per hour)]

1 Num- ber of be- tween points	2 Head rack and high rail		3 Viscera and low rail		4 Low rail and head rack		5 Head rack and carcass ²		6 Carcass ² and washbasin ²		7 Tags—brands and low rail		8 Viscera and washbasin		9 Viscera and high rail		10 Low rail and high rail ¹		11 Head rack and closest washbasin		12 Washbasin and high rail ¹		13 Head rack and wash- basin ¹		14 Viscera and legs—brands	
	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls	Strs. Hrs.	Cows Bulls
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0.1	0
7	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.3	0.3
9	0	0	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.4	0.4
11	0.1	0.1	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0	0	0	0	0.1	0.1	0.1	0.1	0.5	0.6
13	0.1	0.1	0.3	0.2	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0	0	0	0	0.1	0.1	0.1	0.1	0.6	0.7
15	0.1	0.1	0.4	0.3	0	0	0	0	0	0	0	0	0	0	0.3	0.3	0	0	0	0	0.2	0.2	0.2	0.2	0.7	0.9
17	0.1	0.1	0.4	0.3	0	0	0	0	0	0	0	0	0	0	0.3	0.3	0	0	0	0	0.1	0.2	0.2	0.2	0.9	1.0
19	0.1	0.1	0.5	0.4	0	0	0	0	0	0	0	0	0	0	0.3	0.4	0	0	0	0	0.1	0.2	0.2	0.2	1.0	1.1
21	0.2	0.2	0.5	0.4	0	0	0	0	0	0	0	0	0	0	0.4	0.4	0	0	0	0	0.1	0.2	0.3	0.2	1.1	1.3
23	0.2	0.2	0.6	0.5	0	0	0	0	0	0	0	0	0	0	0.4	0.5	0	0	0	0	0.1	0.3	0.3	0.3	1.2	1.4
25	0.2	0.2	0.7	0.5	0	0	0	0	0	0	0	0	0	0	0.5	1.0	0	0	0	0	0.1	0.3	0.3	0.3	1.3	1.5
27	0.2	0.2	0.7	0.5	0	0	0	0	0	0	0	0	0	0	0.5	1.1	0	0	0	0	0.1	0.3	0.3	0.3	1.4	1.7
29	0.2	0.2	0.8	0.6	0	0	0	0	0	0	0	0	0	0	0.6	1.2	0	0	0	0	0.1	0.3	0.3	0.3	1.5	1.8
31	0.3	0.3	0.8	0.6	0	0	0	0	0	0	0	0	0	0	0.6	1.3	0	0	0	0	0.1	0.4	0.4	0.4	1.6	1.9
33	0.3	0.3	0.9	0.7	0	0	0	0	0	0	0	0	0	0	0.7	1.3	0	0	0	0	0.1	0.4	0.4	0.4	1.7	2.1
35	0.3	0.3	1.0	0.7	0	0	0	0	0	0	0	0	0	0	0.7	1.4	0	0	0	0	0.1	0.4	0.4	0.4	1.8	2.2
37	0.3	0.3	1.0	0.8	0	0	0	0	0	0	0	0	0	0	0.8	1.5	0	0	0	0	0.2	0.5	0.5	0.5	1.9	2.3
39	0.3	0.3	1.1	0.8	0	0	0	0	0	0	0	0	0	0	0.8	1.6	0	0	0	0	0.2	0.5	0.5	0.5	2.0	2.4
41	0.4	0.3	1.1	0.9	0	0	0	0	0	0	0	0	0	0	0.9	1.7	0	0	0	0	0.2	0.5	0.5	0.5	2.1	2.6
43	0.4	0.4	1.2	0.9	0	0	0	0	0	0	0	0	0	0	0.9	1.8	0	0	0	0	0.2	0.6	0.6	0.6	2.2	2.7
45	0.4	0.4	1.2	0.9	0	0	0	0	0	0	0	0	0	0	1.0	1.8	0	0	0	0	0.2	0.6	0.6	0.6	2.3	2.8
47	0.4	0.4	1.3	1.0	0	0	0	0	0	0	0	0	0	0	1.0	1.9	0	0	0	0	0.2	0.6	0.6	0.6	2.4	2.9
49	0.4	0.4	1.4	1.0	0	0	0	0	0	0	0	0	0	0	1.1	2.0	0	0	0	0	0.2	0.7	0.7	0.7	2.5	3.1
51	0.5	0.5	1.4	1.1	0	0	0	0	0	0	0	0	0	0	1.1	2.1	0	0	0	0	0.3	0.7	0.7	0.7	2.6	3.2
53	0.5	0.5	1.5	1.1	0	0	0	0	0	0	0	0	0	0	1.2	2.2	0	0	0	0	0.3	0.7	0.7	0.7	2.7	3.3
55	0.5	0.5	1.5	1.2	0	0	0	0	0	0	0	0	0	0	1.2	2.3	0	0	0	0	0.3	0.8	0.7	0.7	2.8	3.4
57	0.5	0.5	1.6	1.2	0	0	0	0	0	0	0	0	0	0	1.3	2.4	0	0	0	0	0.3	0.8	0.7	0.8	2.9	3.5
59	0.5	0.5	1.6	1.3	0	0	0	0	0	0	0	0	0	0	1.3	2.5	0	0	0	0	0.3	0.8	0.8	0.8	3.0	3.6

¹ The washbasin referred to here is the one the inspector uses while enroute from the head rack to high rail inspection.² This refers to the carcass in the bleeding area.

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(B) Rules for determining adjusted maximum slaughter rates for two-inspector kills considering walking distance according to the table in this subdivision: Determine the distances the inspectors actually walk between the points shown in columns 2 through 9 of the following table. Column 9 is used only if the condemned brands and tags the viscera inspector uses are kept at a location other than at the wash-basin-sterilizer. For each column, de-

termine the deduction figure opposite the appropriate number of feet in column 1. Compute the total of the deduction figures for columns 2 through 9. Divide this total by 2. The adjusted maximum rate is the maximum rate in paragraph (b)(2)(i) of this section minus the number calculated above. If the resultant number is not a whole number, it must be rounded off to the next *lowest* whole number.

TWO-INSPECTOR CATTLE KILL—VISCERA TRUCK																
[Table of deductions from maximum slaughter rates for each 2 feet between points (in tenths of cattle per hour)]																
Heads and low rail inspection				Viscera and high rail inspection												
1	2		3		4		5		6		7		8		9 ¹	
	Head rack and washbasin		Head rack and car-casses ²		Washbasin and low rail		Head rack and low rail		Viscera and brands tags (washbasin)		Viscera and high rail		High rail and wash-basin		Viscera and wash-basin	
Number of feet between points	Strs. Hfrs.	Cows Bulls	Strs. Hfrs.	Cows Bulls	Strs. Hfrs.	Cows Bulls	Strs. Hfrs.	Cows Bulls	Strs. Hfrs.	Cows Bulls	Strs. Hfrs.	Cows Bulls	Strs. Hfrs.	Cows Bulls	Strs. Hfrs.	Cows Bulls
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2
5	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.7	0.4	0.5	0.5	0.5	0.5	0.1	0.2	0.3
7	0.1	0.2	0.1	0.1	0.1	0.1	1.5	1.4	0.7	0.9	1.0	0.9	0.3	0.3	0.3	0.4
9	0.2	0.2	0.1	0.2	0.1	0.2	2.2	2.0	1.1	1.3	1.5	1.3	0.4	0.5	0.4	0.5
11	0.2	0.3	0.1	0.2	0.2	0.2	2.8	2.7	1.4	1.7	1.9	1.8	0.5	0.6	0.4	0.6
13	0.2	0.4	0.1	0.3	0.2	0.2	3.5	3.3	1.7	2.1	2.4	2.2	0.6	0.7	0.5	0.8
15	0.3	0.4	0.1	0.3	0.2	0.3	4.1	3.9	2.0	2.5	2.9	2.6	0.7	0.9	0.6	0.9
17	0.3	0.5	0.1	0.4	0.2	0.3	4.8	4.5	2.4	2.9	3.3	3.0	0.8	1.0	0.7	1.0
19	0.3	0.6	0.2	0.4	0.3	0.4	5.4	5.1	2.7	3.3	3.7	3.4	0.9	1.2	0.7	1.2
21	0.3	0.6	0.2	0.4	0.3	0.4	6.0	5.7	3.0	3.7	4.2	3.7	1.0	1.3	0.8	1.3
23	0.4	0.7	0.2	0.5	0.3	0.5	6.6	6.3	3.3	4.0	4.6	4.1	1.2	1.4	0.9	1.4
25	0.4	0.7	0.2	0.5	0.3	0.5	7.2	6.8	3.6	4.4	5.0	4.5	1.3	1.6	1.0	1.6
27	0.4	0.8	0.2	0.6	0.4	0.5	7.8	7.4	3.9	4.7	5.4	4.9	1.4	1.7	1.0	1.7
29	0.5	0.9	0.2	0.6	0.4	0.6	8.3	7.9	4.2	5.1	5.8	5.2	1.5	1.8	1.1	1.8
31	0.5	0.9	0.2	0.7	0.4	0.6	8.9	8.5	4.5	5.4	6.2	5.6	1.6	2.0	1.2	2.0
33	0.5	1.0	0.2	0.7	0.4	0.7	9.4	9.0	4.8	5.8	6.5	5.9	1.7	2.1	1.3	2.1
35	0.6	1.1	0.3	0.8	0.5	0.7	10.0	9.5	5.0	6.1	6.9	6.3	1.8	2.2	1.3	2.3
37	0.6	1.1	0.3	0.8	0.5	0.7	10.5	10.0	5.3	6.4	7.3	6.6	1.9	2.4	1.4	2.4
39	0.6	1.2	0.3	0.9	0.5	0.8	11.0	10.5	5.6	6.8	7.6	6.9	2.0	2.5	1.5	2.5
41	0.7	1.2	0.3	0.9	0.6	0.8	11.5	11.0	5.9	7.1	8.0	7.2	2.1	2.6	1.5	2.6
43	0.7	1.3	0.3	0.9	0.6	0.9	12.0	11.4	6.1	7.4	8.3	7.6	2.2	2.8	1.6	2.8
45	0.7	1.4	0.3	1.0	0.6	0.9	12.5	11.9	6.4	7.7	8.7	7.9	2.4	2.9	1.7	2.9
47	0.8	1.4	0.3	1.0	0.6	1.0	13.0	12.4	6.7	8.0	9.0	8.2	2.5	3.0	1.8	3.0
49	0.8	1.5	0.3	1.1	0.7	1.0	13.4	12.8	6.9	8.3	9.4	8.5	2.6	3.2	1.8	3.1
51	0.8	1.6	0.3	1.1	0.7	1.0	13.9	13.3	7.2	8.6	9.7	8.8	2.7	3.3	1.9	3.3
53	0.9	1.6	0.4	1.2	0.7	1.1	14.4	13.7	7.4	8.9	10.0	9.1	2.8	3.4	2.0	3.4
55	0.9	1.7	0.4	1.2	0.7	1.1	14.8	14.1	7.7	9.2	10.3	9.4	2.9	3.5	2.0	3.5
57	0.9	1.7	0.4	1.3	0.8	1.2	15.2	14.6	7.9	9.5	10.6	9.7	3.0	3.7	2.1	3.6
59	0.9	1.8	0.4	1.3	0.8	1.2	15.7	15.0	8.2	9.7	10.9	9.9	3.1	3.8	2.2	3.8

¹ This column to be used only if brands and tags are not located at the washbasin.

² This refers to the carcasses in the bleeding area.

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(ii) Inspection Using Viscera Table,
Tongue-In Presentation of Heads.

STEERS AND HEIFERS			
Maximum slaughter rates (head per hour)	Number of inspectors by stations		
	Head	Viscera	Car-cass
1 to 32	a	a	a
33 to 58	b	b	b
59 to 84	1	1	1
85 to 86	1	2	1
87 to 143	2	2	1
144 to 171	3	2	1
172 to 198	3	3	1
199 to 226	3	3	2
227 to 253	4	3	2
254 to 280	4	4	2
281 to 306	5	4	2
307 to 333	5	5	2

COWS AND BULLS			
Maximum slaughter rates (head per hour)	Number of inspectors by stations		
	Head	Viscera	Car-cass
1 to 29	a	a	a
30 to 56	b	b	b
57 to 77	1	1	1
78 to 81	1	2	1
82 to 134	2	2	1
135 to 159	2	3	1
160 to 187	3	3	1
188 to 213	3	4	1
214 to 234	3	4	2
235 to 264	4	4	2
265 to 289	5	4	2
290 to 314	5	5	2

(iii) Inspection Using Viscera Table,
Tongue-Out Presentation of Heads.

STEERS AND HEIFERS			
Maximum slaughter rates (head per hour)	Number of inspectors by stations		
	Head	Viscera	Car-cass
1 to 32	a	a	a
33 to 58	b	b	b
59 to 86	1	1	1
87 to 103	1	2	1
104 to 156	2	2	1
157 to 186	2	3	1
187 to 216	3	3	1
217 to 246	3	3	2
247 to 275	3	4	2
276 to 304	4	4	2
305 to 333	4	5	2
334 to 362	5	5	2
363 to 390	5	6	2

COWS AND BULLS

Maximum slaughter rates (head per hour)	Number of inspectors by stations		
	Head	Viscera	Car-cass
1 to 29	a	a	a
30 to 56	b	b	b
57 to 79	1	1	1
80 to 98	1	2	1
99 to 147	2	2	1
148 to 174	2	3	1
175 to 205	3	3	1
206 to 233	3	4	1
234 to 256	3	4	2
257 to 288	4	4	2
289 to 316	5	4	2
317 to 343	5	5	2

(3) *Swine Inspection.* The following inspection staffing standards are applicable to swine slaughter configurations. The inspection standards for all slaughter lines are based upon the observation rather than palpation, at the viscera inspection station, of the spleen, liver, heart, lungs, and mediastinal lymph nodes. In addition, for one- and two-inspector lines, the standards are based upon the distance walked (in feet) by the inspector between work stations; and for three or more inspector slaughter lines, upon the use of a mirror, as described in §307.2(m)(6), at the carcass inspection station. Although not required in a one- or two-inspector slaughter configuration, except in certain cases as determined by the inspection service, if a mirror is used, it must comply with the requirements of §307.2(m)(6).

**TABLE 1—ONE INSPECTOR—STAFFING
STANDARDS FOR SWINE**

Distance walked ¹ in feet is—	Maximum inspection rates (head per hour)			
	Market hogs (heads attached or detached)		Sows and boars (heads detached)	
	Without mirror	With mirror	Without mirror	With mirror
0 to 5	140	150	131	143
6 to 10	134	144	126	137
11 to 15	129	137	122	132
16 to 20	124	132	117	127
21 to 35	120	127	113	122
26 to 30	116	122	110	118
31 to 35	112	118	106	114
36 to 40	108	114	103	110
41 to 45	105	110	100	106
46 to 50	101	107	97	103
51 to 55	98	103	94	100
56 to 60	96	100	91	97
61 to 65	93	97	89	94
66 to 70	90	95	87	92

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TABLE 1—ONE INSPECTOR—STAFFING
STANDARDS FOR SWINE—Continued

Distance walked ¹ in feet is—	Maximum inspection rates (head per hour)			
	Market hogs (heads attached or detached)		Sows and boars (heads detached)	
	Without mirror	With mirror	Without mirror	With mirror
71 to 75	88	92	85	89
76 to 80	86	89	82	87
81 to 85	84	87	80	85
86 to 90	82	85	79	83
91 to 95	80	83	77	81
96 to 100	78	81	75	79

¹ Distance walked is the total distance that the inspector will have to walk between work stations during one inspection cycle (e.g., between viscera, carcass, head, and wash-basin).

TABLE 2—TWO INSPECTORS—STAFFING
STANDARDS FOR MARKET HOGS

Distance walked ¹ in feet by inspector B is—	Maximum inspection rates (head per hour with heads attached or detached)			
	Line configuration			
	Carcass, ² head viscera ³	Viscera, ² head carcass ³	Head, ² viscera carcass ³	
Without Mirror				
0 to 5	151–253	151–271	151–296	
6 to 10	151–239	151–255	151–277	
11 to 15	151–226	151–240	151–260	
16 to 20	151–214	151–227	151–244	
21 to 25	151–204	151–215	151–231	
With Mirror				
0 to 5	151–253	151–303	151–318	
6 to 10	151–239	151–283	151–304	
11 to 15	151–226	151–265	151–289	
16 to 20	151–214	151–249	151–270	
21 to 25	151–204	151–235	151–254	

¹ Distance walked is the total distance that Inspector B will have to walk between work stations during one inspection cycle (e.g., between viscera, carcass, and washbasin).

² Inspector A.

³ Inspector B.

NOTE: In multiple-inspector plants, the inspectors must rotate between all inspection positions *during each shift* to equalize the workload.

TABLE 3—TWO INSPECTORS—STAFFING
STANDARDS FOR SOWS AND BOARS

Distance walked ¹ in feet by inspector B is—	Maximum inspection rates (head per hour)			
	Line Configuration			
	Car-cass, ² head viscera, ³ heads de-tached	Viscera, ² head car-cass, ³ heads de-tached	Head, ² viscera car-cass, ³ heads de-tached	Head, ² viscera car-cass, ³ heads attached
Without Mirror				
0 to 5	144–248	144–254	144–267	144–267
6 to 10	144–235	144–240	144–253	144–253
11 to 15	144–222	144–227	144–239	144–239
16 to 20	144–211	144–215	144–226	144–226
21 to 25	144–201	144–205	144–214	144–214
With Mirror				
0 to 5	144–248	144–292	144–305	144–292
6 to 10	144–235	144–273	144–291	144–280
11 to 15	144–222	144–256	144–272	144–268
16 to 20	144–211	144–241	144–255	144–255
21 to 25	144–201	144–228	144–240	144–240

¹ Distance walked is the total distance that Inspector B will have to walk between work stations during one inspection cycle (e.g., between viscera, carcass, and washbasin).

² Inspector A.

³ Inspector B.

NOTE: In multiple-inspector plants, the inspectors must rotate between all inspection positions *during each shift* to equalize the workload.

TABLE 4—THREE INSPECTORS OR MORE—
STAFFING STANDARDS FOR SWINE

Maximum inspection rates (head per hour with heads attached)	Number of inspectors by station			
	Head	Viscera	Car-cass	Total
Market hogs:				
319 to 506	1	1	1	3
507 to 540	1	2	1	4
541 to 859	2	2	1	5
860 to 1,022	2	3	1	6
1,023 to 1,106	3	3	1	7
Sows and boars:				
306 to 439	1	1	1	3
306 to 462 ¹	1	1	1	3
440 to 475	2	1	1	4
476 to 752	2	2	1	5
753 to 895	3	2	1	6
896 to 964	3	3	1	7

¹ This rate applies if the heads of sows and boars are *de-tached* from the carcasses at the time of inspection.

NOTE: In multiple-inspector plants, the inspectors must rotate between all inspection positions *during each shift* to equalize the workload.

[35 FR 15567, Oct. 3, 1970, as amended at 47 FR 33676, Aug. 4, 1982; 50 FR 19903, May 13, 1985]

§ 310.2 Identification of carcass with certain severed parts thereof and with animal from which derived.

(a) The head, tail, tongue, thymus gland, and all viscera of each slaughtered animal, and all blood and other parts of such animal to be used in the preparation of meat food products or medical products, shall be handled in such a manner as to identify them with the rest of the carcass and as being derived from the particular animal involved, until the post-mortem examination of the carcass and parts thereof has been completed. Such handling shall include the retention of ear tags, backtags, implants, and other identifying devices affixed to the animal, in such a way to relate them to the carcass until the post-mortem examination has been completed.

(b) The official State-Federal Department backtag on any carcass shall:

(1)(i) Be removed from the hide of the animal by an establishment employee and placed in a clear plastic bag. The bag containing the tag shall be affixed to the corresponding carcass.

(ii) The bag containing the tag shall be removed from the carcass by an establishment employee and presented with the viscera to the Program inspector at the point where such inspector conducts the viscera inspection.

(2)(i) Brucellosis and tuberculosis ear tags, herd identification ear tags, sales tags, ear bangles, and similar identification devices shall be removed from the animal's hide or ear by an establishment employee and shall be placed in a clear plastic bag and affixed to the corresponding carcass.

(ii) The bag containing the tag shall be removed from the carcass by an establishment employee and presented with the viscera to the Program inspector at the point where such inspector conducts the viscera inspection.

(3) In cases where both types of devices described in paragraphs (b)(1) and (2) of this section are present on the same animal, both types may be placed in the same plastic bag or in two separate bags.

(4) The circuit supervisor may allow the use of any alternate method proposed by the operator of an official establishment for handling the type of devices described in paragraph (b)(2) of

this section if such alternate method would provide a ready means of identifying a specific carcass with the corresponding devices by a Program inspector during the post-mortem inspection.

(5) Disposition and use of identifying devices.

(i) The official State-Federal Department backtags will be collected by a Program inspector and used to obtain traceback information necessary for proper disposition of the animal or carcass and otherwise handled according to instructions issued to the inspectors.

(ii) The devices described in paragraph (b)(2) of this section shall be collected by the Program inspector when required to obtain traceback information necessary for proper disposition of the animal or carcass and for controlling the slaughter of reactor animals. Devices not collected for these purposes shall be discarded after the post-mortem examination is complete.

(6) Plastic bags used by the establishment for collecting identifying devices will be furnished by the Department.

[35 FR 15567, Oct. 3, 1970; 36 FR 12004, June 24, 1971]

§ 310.3 Carcasses and parts in certain instances to be retained.

Each carcass, including all detached organs and other parts, in which any lesion or other condition is found that might render the meat or any part unfit for food purposes, or otherwise adulterated, and which for that reason would require a subsequent inspection, shall be retained by the Program employee at the time of inspection. The identity of every such retained carcass, detached organ, or other part shall be maintained until the final inspection has been completed. Retained carcasses shall not be washed or trimmed unless authorized by the Program employee.

§ 310.4 Identification of carcasses and parts; tagging.

Such devices and methods as may be approved by the Administrator may be used for the temporary identification of retained carcasses, organs, and other parts. In all cases, the identification shall be further established by affixing

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“U.S. Retained” tags as soon as practicable and before final inspection. These tags shall not be removed except by a Program employee.

§ 310.5 Condemned carcasses and parts to be so marked; tanking; separation.

Each carcass or part which is found on final inspection to be unsound, unhealthful, unwholesome, or otherwise adulterated shall be conspicuously marked, on the surface tissues thereof, by a Program employee at the time of inspection, as “U.S. Inspected and Condemned.” Condemned detached organs and other parts of such character that they cannot be so marked shall be placed immediately in trucks or receptacles which shall be kept plainly marked “U.S. Condemned,” in letters not less than 2 inches high. All condemned carcasses and parts shall remain in the custody of a Program employee and shall be disposed of as required in the regulations in part 314 of this subchapter at or before the close of the day on which they are condemned.

§ 310.6 Carcasses and parts passed for cooking; marking.

Carcasses and parts passed for cooking shall be marked conspicuously on the surface tissues thereof by a Program employee at the time of inspection, “U.S. Passed for Cooking.” All such carcasses and parts shall be cooked in accordance with part 315 of this subchapter, and until so cooked shall remain in the custody of a Program employee.

§ 310.7 Removal of spermatic cords, pizzles and preputial diverticuli.

Spermatic cords and pizzles shall be removed from all carcasses. Preputial diverticuli shall be removed from hog carcasses.

§ 310.8 Passing and marking of carcasses and parts.

Carcasses and parts found to be sound, healthful, wholesome, and otherwise not adulterated shall be passed and marked as provided in part 316 of this subchapter. In all cases where carcasses showing localized lesions are passed for food or for cooking and

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“U.S. Retained” tags are attached to the carcasses, the affected tissues shall be removed and condemned before the tags are removed. “U.S. Retained” tags shall be removed only by a Program employee.

§ 310.9 Anthrax; carcasses not to be eviscerated; disposition of affected carcasses; hides, hoofs, horns, hair, viscera and contents, and fat; handling of blood and scalding vat water; general cleanup and disinfection.

(a) Carcasses found before evisceration to be affected with anthrax shall not be eviscerated but shall be retained, condemned, and immediately tanked or otherwise disposed of as provided in part 314 of this subchapter.

(b) All carcasses and all parts, including hides, hoofs, horns, hair, viscera and contents, blood, and fat of any livestock found to be affected with anthrax shall be condemned and immediately disposed of as provided in part 314 of this subchapter, except that the blood may be handled through the usual blood cooking and drying equipment.

(c) Any part of any carcass that is contaminated with anthrax-infected material through contact with soiled instruments or otherwise shall be immediately condemned and disposed of as provided in part 314 of this subchapter.

(d) The scalding vat water through which hog carcasses affected with anthrax have passed shall be immediately drained into the sewer and all parts of the scalding vat shall be cleaned and disinfected as provided in paragraph (e) of this section.

(e)(1) That portion of the slaughtering department, including the bleeding area, scalding vat, gambrelling bench, floors, walls, posts, platforms, saws, cleavers, knives, and hooks, as well as employees’ boots and aprons, contaminated through contact with anthrax-infected material, shall, except as provided in paragraph (e)(2) of this section be cleaned immediately and disinfected with one of the following

disinfectants or other disinfectant¹ approved specifically for this purpose by the Administrator:

(i) A 5 percent solution of sodium hydroxide or commercial lye containing at least 94 percent of sodium hydroxide. The solution shall be freshly prepared immediately before use by dissolving 2½ pounds of sodium hydroxide or lye in 5½ gallons of hot water and shall be applied as near scalding hot as possible to be most effective. (Owing to the extremely caustic nature of sodium hydroxide solution, precautionary measures such as the wearing of rubber gloves and boots to protect the hands and feet, and goggles to protect the eyes, should be taken by those engaged in the disinfection process. It is also advisable to have an acid solution, such as vinegar, in readiness in case any of the sodium hydroxide solution should come in contact with any part of the body.)

(ii) A solution of sodium hypochlorite containing approximately one-half of 1 percent (5,000 parts per million) of available chlorine. The solution shall be freshly prepared.

(iii) When a disinfectant solution has been applied to equipment which will afterwards contact product, the equipment shall be rinsed with clean water before such contact.

(2) In case anthrax infection is found in the hog slaughtering department, an immediate preliminary disinfection shall be made from the head-dropper's station to the point where the disease is detected and the affected carcasses shall be cut down from the rail and removed from the room. Upon completion of the slaughtering of the lot of hogs of which the anthrax-infected animals were a part, slaughtering operations shall cease, and a thorough cleanup and disinfection shall be made, as provided in paragraph (e)(1) of this section. If the slaughter of the lot has not been completed by the close of the day on which anthrax was detected, the cleanup and disinfection shall not be deferred beyond the close of that day.

¹A list of disinfectants approved for this purpose is available upon request to the Scientific Services, Meat and Poultry Inspection, Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, DC 20250.

(3) The first and indispensable precautionary step for persons who have handled anthrax material is thorough cleansing of the hands and arms with liquid soap and running hot water. It is important that this step be taken immediately after exposure, before vegetative anthrax organisms have had time to form spores. In the cleansing, a brush or other appropriate appliance shall be used to insure the removal of all contaminating material from under and about the fingernails. This process of cleansing is most effective when performed in repeated cycles of lathering and rinsing rather than in spending the same amount of time in scrubbing with a single lathering. After the hands have been cleansed thoroughly and rinsed free of soap, they may, if desired, be immersed for about 1 minute in a 1:1,000 solution of bichloride of mercury, followed by thorough rinsing in clean running water. Supplies of bichloride of mercury for the purpose must be held in the custody of the veterinary medical officer. (As a precautionary measure, all persons exposed to anthrax infection should report promptly any suspicious condition (sore or carbuncle) or symptom to a physician, in order that anti-anthrax serum or other treatment may be administered as indicated.)

[35 FR 15567, Oct. 3, 1970; 36 FR 11903, June 23, 1971]

§ 310.10 Carcasses with skin or hide on; cleaning before evisceration; removal of larvae of *Hypoderma*, external parasites and other pathological skin conditions.

When a carcass is to be dressed with the skin or hide left on, the skin or hide shall be thoroughly washed and cleaned before any incision is made for the purpose of removing any part thereof or evisceration, except that where calves are slaughtered by the kosher method, the heads shall be removed from the carcasses, before washing of the carcasses. The skin shall be removed at the time of post-mortem inspection from any calf carcass infested with the larvae of the "oxwarble" fly (*Hypoderma lineata* and *Hypoderma bovis*), or external parasites, or affected with other pathological skin conditions.

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§ 310.11 Cleaning of hog carcasses before incising.

All hair, scurf, dirt, hoofs and claws shall be removed from hog carcasses, and the carcasses shall be thoroughly washed and cleaned before any incision is made for inspection or evisceration.

§ 310.12 Sternum to be split; abdominal and thoracic viscera to be removed.

The sternum of each carcass shall be split and the abdominal and thoracic viscera shall be removed at the time of slaughter in order to allow proper inspection.

§ 310.13 Inflating carcasses or parts thereof; transferring caul or other fat.

(a)(1) Establishments shall not inflate carcasses or parts of carcasses with air, except as set forth in paragraph (a)(2) of this section.

(2)(i) Any establishment slaughtering livestock that wishes to inflate carcasses or parts thereof with air, using procedures other than the approved methods listed below, shall submit a request for approval for experimental testing to the Administrator. Such a request shall include the purpose of the use of air, a detailed description of the procedure for injecting the air and evidence that the procedure can be performed in a sanitary manner.

(ii) The Administrator shall evaluate newly submitted procedures for the use of air. If the Administrator determines that any such procedure will likely result in wholesome, unadulterated meat product, then the Administrator shall approve experimental testing of the new procedure. In any situation where the Administrator finds a submitted procedure to be unlikely to result in wholesome, unadulterated meat product, the Administrator shall send written notification to the establishment of the denial of such approval. The establishment may re-submit for evaluation a testing procedure that has been denied, provided that modifications have been made to address the original reason for denial. The establishment also shall be afforded an opportunity to submit a written statement in response to the notification of denial. In those instances where there is a conflict of

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facts, a hearing, under applicable rules of practice, will be held to resolve the conflict.

(iii) Final approval of an acceptable new proposed method shall be effectuated by modifying, through rule-making procedures, the Federal regulations to include the new method.

(iv) Uses for which approval is granted are:

(A) Compressed air injection of cattle feet to facilitate removal of hair from feet intended for human consumption;

(B) Compressed air injection under the skin of cattle heads to facilitate head skinning;

(C) Compressed air injection into the skull of all livestock except cattle in conjunction with a captive bolt stunner to hold the animal still for dressing operations; or

(D) Compressed air injected into the abdominal cavity of swine to facilitate the skinning operation and to minimize the loss of body fat.

The method of compressed air injection shall be a sanitary procedure that includes air filtration and injection needle disinfection. Air filtration shall consist of not less than two stages. An initial stage of filtration shall occur at or near the use point and shall consist of an aerosol or coalescing filter, capable of filtration to not more than 0.75 micron, for the removal of oil and water. A subsequent stage of filtration shall occur at or near the point of needle hose attachment to the air line and shall be a particulate filter, capable of filtration to not more than 0.3 micron. The filters shall be maintained by inspecting regularly to assure they are working properly, and cleaned or replaced when necessary. The injection needle shall be disinfected by placement in water that is not less than 180 °F. for at least 10 seconds immediately prior to each injection.

(b) Transferring the caul or other fat from a fat to a lean carcass is prohibited.

(Approved by the Office of Management and Budget under control number 0583–0015)

[54 FR 36756, Sept. 5, 1989, as amended at 55 FR 29565, July 20, 1990; 69 FR 1891, Jan. 12, 2004]

§ 310.14 Handling of bruised parts.

When only a portion of a carcass is to be condemned on account of slight bruises, either the bruised portion shall be removed immediately and disposed of in accordance with part 314 of this subchapter, or the carcass shall be promptly placed in a retaining room and kept until chilled and the bruised portion shall then be removed and disposed of as provided in part 314 of this subchapter.

§ 310.15 Disposition of thyroid glands and laryngeal muscle tissue.

(a) Livestock thyroid glands and laryngeal muscle tissue shall not be used for human food.

(b) Livestock thyroid glands and laryngeal muscle tissue may be distributed to pharmaceutical manufacturers for pharmaceutical use in accordance with § 314.9 or § 325.19(c) of this subchapter, if they are labeled in accordance with § 316.13(f) of this subchapter. Otherwise, they shall be disposed of at the official establishment in accordance with § 314.1 or § 314.3 of this subchapter.

[53 FR 45890, Nov. 15, 1988]

§ 310.16 Disposition of lungs.

(a) Livestock lungs shall not be saved for use as human food.

(b) Lungs found to be affected with disease or pathology and lungs found to be adulterated with chemical or biological residue shall be condemned and identified as "U.S. Inspected and Condemned." Condemned lungs may not be saved for pet food or other nonhuman food purposes. They shall be maintained under inspectional control and disposed of in accordance with §§ 314.1 and 314.3 of this subchapter.

(c) Lungs not condemned under paragraph (b) of this section may be used in the preparation of pet food or for other nonhuman food purposes at the official establishment, provided they are handled in the manner prescribed in § 318.12 of this subchapter, or they may be distributed from the establishment in commerce, or otherwise, in accordance with the conditions prescribed in § 325.8 of this subchapter for nonhuman food purposes or they may be so distributed to pharmaceutical manufacturers for

pharmaceutical use in accordance with §§ 314.9 and 325.19(b) of this subchapter, if they are labeled as "Inedible [SPECIES] Lungs—for Pharmaceutical Use Only." Otherwise, they shall be disposed of at the official establishment, in accordance with §§ 314.1 and 314.3 of this subchapter.

[36 FR 11639, June 17, 1971]

§ 310.17 Inspection of mammary glands.

(a) Lactating mammary glands and diseased mammary glands of cattle, sheep, swine, and goats shall be removed without opening the milk ducts or sinuses. If pus or other objectionable material is permitted to come in contact with the carcass, the parts of the carcass thus contaminated shall be removed and condemned.

(b) Nonlactating cow udders may be saved for food purposes provided suitable facilities for handling and inspecting them are provided. Examination of udders by palpation shall be done by a Program employee. When necessary, in the judgment of the Program employee for adequate inspection, the official establishment employees shall incise udders in sections no greater than 2 inches in thickness. All udders showing disease lesions shall be condemned by a Program employee. Each udder shall be properly identified with its respective carcass and kept separate and apart from other udders until its disposal has been accomplished in accordance with the provisions of part 311 of this subchapter.

(c) Lactating mammary glands of cattle, sheep, swine, and goats shall not be saved for edible purposes.

(d) The udders from cows officially designated as "Brucellosis reactors" or as "Mastitis elimination cows" shall be condemned.

§ 310.18 Contamination of carcasses, organs, or other parts.

(a) Carcasses, organs, and other parts shall be handled in a sanitary manner to prevent contamination with fecal material, urine, bile, hair, dirt, or foreign matter; however, if contamination occurs, it shall be promptly removed in a manner satisfactory to the inspector.

(b) Brains, cheek meat, and head trimmings from animals stunned by

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lead, sponge iron, or frangible bullets shall not be saved for use as human food but shall be handled as described in § 314.1 or § 314.3 of this subchapter.

§ 310.19 Inspection of kidneys.

An employee of the establishment shall open the kidney capsule and expose the kidneys of all livestock at the time of slaughter for the purpose of examination by a Program employee.

§ 310.20 Saving of blood from livestock as an edible product.

Blood may be saved for edible purposes at official establishments provided it is derived from livestock, the carcasses of which are inspected and passed, and the blood is collected, defibrinated, and handled in a manner so as not to render it adulterated under the Federal Meat Inspection Act and regulations issued pursuant thereto. The defibrination of blood intended for human food purposes shall not be done with the hands. Anticoagulants may be used in accordance with 21 CFR Chapter I, Subchapter A and Subchapter B, or by regulation in 9 CFR Chapter III, Subchapter A or Subchapter E.

[64 FR 72174, Dec. 23, 1999]

§ 310.21 Carcasses suspected of containing sulfa and antibiotic residues; sampling frequency; disposition of affected carcasses and parts.

(a) Calf carcasses from animals suspected of containing biological residues under § 309.16(d) of this subchapter shall, on post-mortem inspection, be handled in accordance with the provisions of this section.

(b) For purposes of this section, the following definitions shall apply:

(1) *Calf*. A calf up to 3 weeks of age or up to 150 pounds.

(2) *Certified calf*. A calf that the producer and all other subsequent custodians of the calf certify in writing has not been treated with any animal drug while in his or her custody or has been treated with one or more drugs in accordance with FDA approved label directions while in his or her custody and has been withheld from slaughter for the period(s) of time specified by those label directions.

(3) *Healthy carcass*. A carcass that an inspector determines shows no lesions

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of disease or signs of disease treatment at post-mortem inspection

(4) *Producer*. The owner of the calf at the time of its birth.

(5) *Sick calf carcass*. A calf carcass that an inspector on post-mortem inspection determines has either signs of disease treatment or lesions of disease or was from an animal identified as sick on ante-mortem.

(6) *Sign of treatment*. Sign of treatment of a disease is indicated by leakage around jugular veins, subcutaneous, intramuscular or intraperitoneal injection lesions, or discoloration from particles or oral treatment in any part of the digestive tract.

(7) *Veterinary medical officer*. An inspector of the Program that has obtained a Doctor of Veterinary Medicine degree which is recognized by the Program.

(c) *Selection of carcasses for testing*. The inspector shall perform a swab bioassay test¹ on:

(1) Any carcass from a calf tagged as “U.S. Suspect” at the time of ante-mortem inspection, except that calves whose carcasses are condemned for pathology shall not be tested for drug residues.

(2) Any carcass which he/she finds has either lesions of disease which is not condemned because of these lesions or a sign of treatment of disease at the time of post-mortem inspection.

(3) Any carcass of a calf from a producer whose calf or calves have previously been condemned for residues as prescribed in paragraph (e) of this section, and

(4) Carcasses from healthy-appearing certified and noncertified calves, as determined by the veterinary medical officer during ante-mortem inspection, will be selected for testing as set forth below:

¹The procedures for performing the swab bioassay test are set forth in one of two self-instructional guides: “Performing the CAST” or “Fast Antimicrobial Screen Test.” These guides are available for review in the office of the FSIS Docket Clerk, Room 4352 South, Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, DC 20250.

Testing level	Sampling Rate (percent of estimated day's slaughter)	
	Certified	Noncertified
A	100	100
B	50	50
C	20	30
(Start) D	5	10
E	2	5
F	1	2

(d) *Testing of carcasses:*

(1) The inspector shall test all carcasses as prescribed in paragraph (c) of this section.

(2) Upon initiation of this program at an establishment, the inspector shall begin the testing rate for carcasses from healthy-appearing certified and noncertified calves at Level D as prescribed in paragraph (c)(4) of this section. The inspector shall increase the testing rate to the next higher level the following business day when three carcasses in 100 or less consecutively tested show a positive test result for a drug residue. The inspector shall decrease it to the next lower level when no more than two calves show a positive test result for a drug residue in either 500 calves consecutively tested or all calves tested over a 60 working day period.

(3) Test results shall be determined by the veterinary medical officer.

(4) The establishment may designate one or more of its employees to aid the inspector in performing the swab bioassay test under the supervision of the veterinary medical officer who shall interpret the results, maintain animal identification with the test unit, and ensure integrity of the testing program.

(5) All carcasses and parts thereof from calves selected for testing shall be retained until all test results are complete.

(6) The veterinary medical officer shall condemn all carcasses and parts thereof for which there are positive test results and release for human consumption all carcasses and parts thereof for which there are negative test results.

(7) If there is a positive test result, subsequent calves from the producer of the calf shall be tested in accordance with paragraph (e) of this section. These test results will not be included

in computations to determine an establishment's compliance record.

(8) The veterinary medical officer may reduce inspection line rates when, in his/her judgment, the prescribed testing cannot be adequately performed within the time available because the establishment's compliance history dictates a need for extensive testing.

(e) *Calves from producers with a previous residue condemnation.* The inspector shall perform a swab bioassay test on all carcasses of all calves in the group. The veterinary medical officer shall determine the test results and shall condemn any carcass and parts thereof for which there is a positive test result and pass for human consumption any such carcass and parts thereof for which there is a negative test result. All subsequent calves from the same producer which has previously sold or delivered to official establishments any carcass that was condemned because of drug residues must be tested according to this paragraph until five consecutive animals test completely free of animal drug residues.

(f) If the owner or operator of an official establishment disagrees with the veterinary medical officer's disposition of carcasses and parts thereof, the owner or operator may appeal as provided in section 306.5 of this chapter.

[50 FR 32164, Aug. 9, 1985, as amended at 52 FR 2104, Jan. 20, 1987; 55 FR 7475, Mar. 2, 1990; 60 FR 66483, Dec. 22, 1995]

§ 310.22 Specified risk materials from cattle and their handling and disposition.

(a) The following materials from cattle are specified risk materials:

(1) The brain, skull, eyes, trigeminal ganglia, spinal cord, vertebral column (excluding the vertebrae of the tail, the transverse processes of the thoracic and lumbar vertebrae, and the wings of the sacrum), and dorsal root ganglia of cattle 30 months of age and older;

(2) The tonsils of all cattle; and

(3) *The distal ileum of all cattle.* The small intestine may be used for human food if:

(i) It is derived from cattle that were inspected and passed in an official establishment in the United States or in

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a certified foreign establishment in a country listed in 9 CFR 327.2(b) as eligible to export meat and meat products to the United States and it is otherwise eligible for importation under 9 CFR 327.1(b), and

(ii) The distal ileum is removed by a procedure that removes at least 80 inches of the uncoiled and trimmed small intestine as measured from the ceco-colic junction and progressing proximally towards the jejunum or by a procedure that the establishment demonstrates is effective in ensuring complete removal of the distal ileum.

(b) Specified risk materials are inedible and shall not be used for human food.

(c) Specified risk materials shall be disposed of in accordance with §§314.1 or 314.3 of this subchapter.

(d) Procedures for the removal, segregation, and disposition of specified risk materials.

(1) Establishments that slaughter cattle and establishments that process the carcasses or parts of cattle shall develop, implement, and maintain written procedures for the removal, segregation, and disposition of specified risk materials. The establishment shall incorporate such procedures into its HACCP plan or in its Sanitation SOP or other prerequisite program.

(2) Establishments that slaughter cattle and establishments that process the carcasses or parts of cattle must take appropriate corrective action when either the establishment or FSIS determines that the establishment's procedures for the removal, segregation, and disposition of specified risk materials, or the implementation or maintenance of such procedures, have failed to ensure that such materials are adequately and effectively removed from the carcass of cattle, segregated from edible materials, and disposed of in accordance with paragraph (c) of this section.

(3) Establishments that slaughter cattle and establishments that process the carcasses or parts of cattle shall routinely evaluate the effectiveness of their procedures for the removal, segregation, and disposition of specified risk materials in preventing the use of these materials for human food and shall revise the procedures as nec-

essary whenever any changes occur that could affect the removal, segregation, and disposition of specified risk materials.

(4) *Recordkeeping requirements.* (i) Establishments that slaughter cattle and establishments that process the carcasses or parts of cattle shall maintain daily records sufficient to document the implementation and monitoring of the procedures for the removal, segregation, and disposition of the materials listed in paragraph (a) of this section, and any corrective actions taken.

(ii) Records required by this section may be maintained on computers provided that the establishment implements appropriate controls to ensure the integrity of the electronic data.

(iii) Records required by this section shall be retained for at least one year and shall be accessible to FSIS. All such records shall be maintained at the official establishment 48 hours following completion, after which they may be maintained off-site provided such records can be made available to FSIS within 24 hours of request.

(e) The materials listed in paragraph (a)(1) of this section will be deemed to be from cattle 30 months of age and older unless the establishment can demonstrate that the materials are from an animal that was younger than 30 months of age at the time of slaughter.

[69 FR 1873, Jan. 12, 2004, as amended at 70 FR 53050, Sept. 7, 2005]

§ 310.23 Identification of carcasses and parts of swine.

(a) The identification of the carcasses and parts of swine identified in accordance with part 71 of this title shall be made available to the inspector upon the inspector's request throughout post-mortem inspection.

(b) If the establishment fails to provide required swine identification, the inspector shall order the retention of swine carcasses at the establishment until the completion of tests to confirm that the carcasses are not adulterated.

[53 FR 40387, Oct. 14, 1988]

§ 310.24 [Reserved]

§ 310.25 Contamination with micro-organisms; process control verification criteria and testing; pathogen reduction standards.

(a) Criteria for verifying process control; *E. coli* testing. (1) Each official establishment that slaughters livestock must test for *Escherichia coli* Biotype 1 (*E. coli*). Establishments that slaughter more than one type of livestock or both livestock and poultry, shall test the type of livestock or poultry slaughtered in the greatest number. The establishment shall:

(i) Collect samples in accordance with the sampling techniques, methodology, and frequency requirements in paragraph (a)(2) of this section;

(ii) Obtain analytic results in accordance with paragraph (a)(3) of this section; and

(iii) Maintain records of such analytic results in accordance with paragraph (a)(4) of this section.

(2) Sampling requirements.

(i) *Written procedures.* Each establishment shall prepare written specimen collection procedures which shall identify employees designated to collect samples, and shall address location(s) of sampling, how sampling randomness is achieved, and handling of the sample to ensure sample integrity. The written procedure shall be made available to FSIS upon request.

(ii) *Sample collection.* The establishment must collect samples from all chilled livestock carcasses, except those boned before chilling (hot-boned), which must be sampled after the final wash. Samples must be collected in the following manner;

(A) For cattle, establishments must sponge or excise tissue from the flank, brisket and rump, except for hide-on calves, in which case establishments must take samples by sponging from inside the flank, inside the brisket, and inside the rump.

(B) For sheep, goat, horse, mule, or other equine carcasses, establishments must sponge from the flank, brisket and rump, except for hide-on carcasses, in which case establishments must take samples by sponging from inside the flank, inside the brisket, and inside the rump.

(C) For swine carcasses, establishments must sponge or excise tissue from the ham, belly and jowl areas.

(iii) *Sampling frequency.* Slaughter establishments, except very low volume establishments as defined in paragraph (a)(2)(v) of this section, must take samples at a frequency proportional to the volume of production at the following rates:

(A) Cattle, sheep, goats, horses, mules, and other equines: 1 test per 300 carcasses, but, a minimum of one sample during each week of operation.

Swine: 1 test per 1,000 carcasses, but a minimum of one sample during each week of operation.

(iv) *Sampling frequency alternatives.* An establishment operating under a validated HACCP plan in accordance with § 417.2(b) of this chapter may substitute an alternative frequency for the frequency of sampling required under paragraph (a)(2)(iii) of this section if,

(A) The alternative is an integral part of the establishment's verification procedures for its HACCP plan and,

(B) FSIS does not determine, and notify the establishment in writing, that the alternative frequency is inadequate to verify the effectiveness of the establishment's processing controls.

(v) *Sampling in very low volume establishments.* (A) Very low volume establishments annually slaughter no more than 6,000 cattle, 6,000 sheep, 6,000 goats, 6,000 horses, mules or other equines, 20,000 swine, or a combination of livestock not exceeding 6,000 cattle and 20,000 total of all livestock. Very low volume establishments that collect samples by sponging shall collect at least one sample per week, starting the first full week of operation after June 1 of each year, and continue sampling at a minimum of once each week the establishment operates until June 1 of the following year or until 13 samples have been collected, whichever comes first. Very low volume establishments collecting samples by excising tissue from carcasses shall collect one sample per week, starting the first full week of operation after June 1 of each year, and continue sampling at a minimum of once each week the establishment operates until one series of 13 tests meets the criteria set forth in paragraph (a)(5)(i) of this section.

(B) Upon the establishment's meeting requirements of paragraph (a)(2)(v)(A) of this section, weekly sampling and testing is optional, unless changes are made in establishment facilities, equipment, personnel or procedures that may affect the adequacy of existing process control measures, as determined by the establishment or FSIS. FSIS determinations that changes have been made requiring resumption of weekly testing shall be provided to the establishment in writing.

(3) *Analysis of samples.* Laboratories may use any quantitative method for analysis of *E. coli* that is approved as an AOAC Official Method of the AOAC International (formerly the Association of Official Analytical Chemists)² or approved and published by a scientific body and based on the results of a collaborative trial conducted in accordance with an internationally recognized protocol on collaborative trials and compared against the three tube

Most Probable Number (MPN) method and agreeing with the 95 percent upper and lower confidence limit of the appropriate MPN index.

(4) *Recording of test results.* The establishment shall maintain accurate records of all test results, in terms of CFU/cm² of surface area sponged or excised. Results shall be recorded onto a process control chart or table showing at least the most recent 13 test results, by type of livestock slaughtered. Records shall be retained at the establishment for a period of 12 months and shall be made available to FSIS upon request.

(5) *Criteria for evaluation of test results.* (i) An establishment excising samples from carcasses is operating within the criteria when the most recent *E. coli* test result does not exceed the upper limit (M), and the number of samples, if any, testing positive at levels above (m) is three or fewer out of the most recent 13 samples (n) taken, as follows:

TABLE 1—EVALUATION OF *E. COLI* TEST RESULTS

Type of livestock	Lower limit of marginal range (m)	Upper limit of marginal range (M)	Number of sample tested (n)	Maximum number permitted in marginal range (c)
Cattle	Negative ^a	100 CFU/cm ²	13	3
Swine	10 CFU/cm ²	10,000 CFU/cm ²	13	3

^a Negative is defined by the sensitivity of the method used in the baseline study with a limit of sensitivity of at least 5 cfu/cm² carcass surface area.

(ii) Establishments sponging carcasses shall evaluate *E. coli* test results using statistical process control techniques.

(6) *Failure to meet criteria.* Test results that do not meet the criteria described in paragraph (a)(5) of this section are an indication that the establishment may not be maintaining process controls sufficient to prevent fecal contamination. FSIS shall take further action as appropriate to ensure that all applicable provisions of the law are being met.

(7) *Failure to test and record.* Inspection shall be suspended in accordance

with rules of practice that will be adopted for such proceedings upon a finding by FSIS that one or more provisions of paragraphs (a) (1)–(4) of this section have not been complied with and written notice of same has been provided to the establishment.

(b) Pathogen reduction performance standard; *Salmonella*—(1) *Raw meat product performance standards for Salmonella.* An establishment's raw meat products, when sampled and tested by FSIS for *Salmonella*, as set forth in this

²A copy of the current edition/revision of the "Official Methods of AOAC International," 16th edition, 3rd revision, 1997, is on file with the Director, Office of the Fed-

eral Register, and may be purchased from the Association of Official Analytical Chemists International, Inc., 481 North Frederick Ave., Suite 500, Gaithersburg, MD 20877–2417.

section, may not test positive for *Salmonella* at a rate exceeding the applicable national pathogen reduction per-

formance standard, as provided in Table 2:

TABLE 2—SALMONELLA PERFORMANCE STANDARDS

Class of product	Performance Standard (percent positive for <i>Salmonella</i>) ^a	Number of samples tested (n)	Maximum number of positives to achieve Standard (c)
Steers/heifers	1.0%	82	1
Cows/bulls	2.7%	58	2
Ground beef	7.5%	53	5
Hogs	8.7%	55	6
Fresh pork sausages	^b N.A.	N.A.	N.A.

^a Performance Standards are FSIS's calculation of the national prevalence of *Salmonella* on the indicated raw product based on data developed by FSIS in its nationwide microbiological data collection programs and surveys. Copies of Reports on FSIS's Nationwide Microbiological Data Collection Programs and Nationwide Microbiological Surveys used in determining the prevalence of *Salmonella* on raw products are available in the FSIS Docket Room.

^b Not available; values for fresh pork sausage will be added upon completion data collection programs for those products.

(2) *Enforcement.* FSIS will sample and test raw meat products in an individual establishment on an unannounced basis to determine prevalence of *Salmonella* in such products to determine compliance with the standard. The frequency and timing of such testing will be based on the establishment's previous test results and other information concerning the establishment's performance. In an establishment producing more than one class of product subject to the pathogen reduction standard, FSIS may sample any or all such classes of products.³

(3) *Noncompliance and establishment response.* When FSIS determines that an establishment has not met the performance standard:

(i) The establishment shall take immediate action to meet the standard.

(ii) If the establishment fails to meet the standard on the next series of compliance tests for that product, the establishment shall reassess its HACCP plan for that product and take appropriate corrective actions.

(iii) Failure by the establishment to act in accordance with paragraph (b)(3)(ii) of this section, or failure to meet the standard on the third consecutive series of FSIS-conducted tests for that product, constitutes failure to

maintain sanitary conditions and failure to maintain an adequate HACCP plan, in accordance with part 417 of this chapter, for that product, and will cause FSIS to suspend inspection services. Such suspension will remain in effect until the establishment submits to the FSIS Administrator or his/her designee satisfactory written assurances detailing the action taken to correct the HACCP system and, as appropriate, other measures taken by the establishment to reduce the prevalence of pathogens.

[61 FR 38864, July 25, 1996, as amended at 62 FR 26217, May 13, 1997; 63 FR 1735, Jan. 12, 1998; 64 FR 66553, Nov. 29, 1999]

PART 311—DISPOSAL OF DISEASED OR OTHERWISE ADULTERATED CARCASSES AND PARTS

Sec.

311.1 Disposal of diseased or otherwise adulterated carcasses and parts; general.

311.2 Tuberculosis.

311.3 Hog cholera.

311.5 Swine erysipelas.

311.6 Diamond-skin disease.

311.7 Arthritis.

311.8 Cattle carcasses affected with anasarca or generalized edema.

311.9 Actinomycosis and actinobacillosis.

311.10 Anaplasmosis, anthrax, babesiosis, bacillary hemoglobinuria in cattle, blackleg, bluetongue, hemorrhagic septicemia, icterohematuria in sheep, infectious bovine rhinotracheitis, leptospirosis, malignant epizootic catarrh, strangles, purpura hemorrhagica, azoturia, infectious equine

³A copy of FSIS's "Sample Collection Guidelines and Procedure for Isolation and Identification of *Salmonella* from Meat and Poultry Products" is available for inspection in the FSIS Docket Room.